

Learnings from the Global Financial Crisis



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Dear Members,

Hope you enjoyed reading our earlier e-reviews titled 'Pearls of wisdom', 'Insights' and 'Acumen' in which we brought to you speeches by some of the eminent awardees of various BMA awards.

We again resume bringing you interesting articles sent to us by our own members and others.

In this e-review, we bring you a scholarly article written by Md. Manauwar Alam, a final year student of NMIMS. The article chronicles the developments that unfolded beginning from 2007, whose roots can be traced to policy decisions much earlier and which finally resulted in a severe banking & financial crisis in September 2008 and in an economic crisis thereafter.

Happy reading!

Best regards,



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New Global Financial Structure – World After Financial Crisis

A Paper by

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Introduction

“Irrational exurbence” was the phrase used by the former Fed Chairman Alan Greenspan to define the boom in 1990s. Today this phrase once again, exactly describes the current situation.

The classic explanation of financial crises, going back hundreds of years, is that they are caused by excesses — frequently monetary excesses—which lead to a boom and an inevitable bust. This crisis arose from the unabated housing boom witnessed in USA in the early part of the century. It in turn was the outcome of monetary excesses by the Federal Reserve Board during the Alan Greenpsan’s tenure.

Unfolding of Crisis

The current economic difficulties have a United States origin. The original underlying assets were houses whose prices were falling. The collapse of the securitized US mortgage market and its related derivative products amplified the weakness of the US housing sector, sending a contractionary shock through the US economy and to the rest of the world. Asset backed commercial paper issued by the special purpose vehicles now in trouble brought weakness to the dollar funding market, causing it to freeze up in August 2007. This market provides large US and foreign multinational financial conglomerates with the short-term monies that they need to finance their investments, including those made daily on their trading floors. It has been more or less frozen ever since, with disastrous consequences for the larger financial system. Its complete shutdown in August 2007 crippled the US banking and financial system, causing it to slowly unravel. Matters got worse in September 2008, or rather, matters came to a head. Little new had happened within the core of the financial system itself, for it had already come to a halt, but the general macroeconomy was weakening and pulling asset prices further down. The freeze-up spread from the interbank to the other short-term US

money markets, including those controlled by the major money market mutual funds, causing them to freeze up as well. By November 2008, the entire financial system, and not that of just the money markets of the United States or the United Kingdom, became incapable of carrying out even the simplest of steps involved in the conversion of corporate savings into investment or the financing of home building, personal consumption, or development.

Initially the “Decoupling Theory” was cited for the apparent survival of the emerging economies (especially BRIC countries) from the crisis. This immunity did not last long. The slowdown crept into these economies through the trade route and flight of capital. Soon, countries that had adopted export-led growth strategies and liberalized their capital accounts (China and East Asian countries to a large extent), found that they were suffering from the effects of a reduction of the aggregate demand of the nations to which they exported. Emerging market and developing countries are now suffering from the same vicious circle that is affecting the developed nations: their weakening economies are interacting with weaknesses in their financial systems.

Analysis of causes of Financial Crisis

Current global crisis has not erupted all of a sudden. The cracks in the financial system began to appear in early 2007. When the securitization market collapsed in the summer of 2007, and realizations of subprime losses began to show on bank’s balance sheets, one thing became clear for many of us – this would be a unique period in financial history. The roots of crisis have been germinating since people and financial organizations started exploiting their business potential over in-organic level. Market data helps to understand the probable causes and drawbacks which evolved the crisis to the current extent. Major causes for the current global crisis can be as follows.

- ***Loose Fitting Monetary Policy***

U.S. has been considered the place for eruption of current financial crisis. U.S. has been criticized for not taking policy decisions with the taste of time. Federal Reserve policy decisions—in terms of the federal funds interest rate—from 2000 to 2006 have not been impressive with respect to contemporary financial situation.

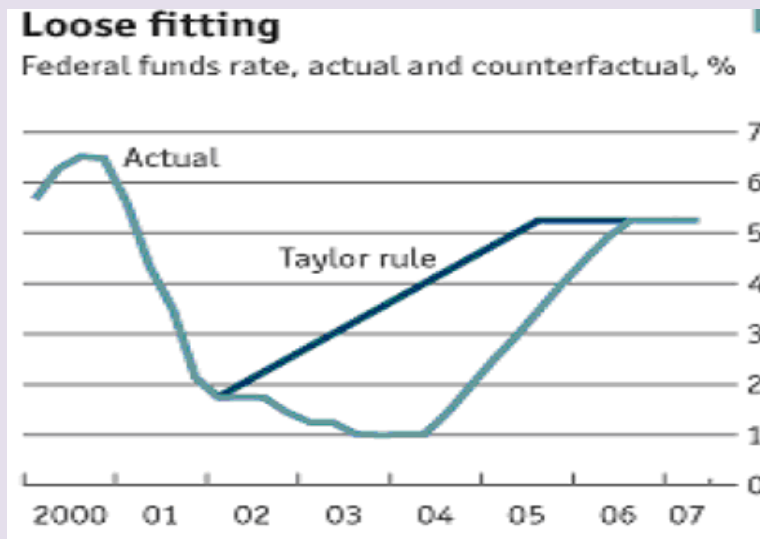


Figure 1 Source: The Economist, Oct 18, 2007

Figure 1 shows that the actual interest rate decisions fell well below what historical experience (Taylor Rule) would suggest policy should be. It thus provides an empirical measure that monetary policy was too easy during this period, or too “loose fitting”. This was an unusually big deviation from the Taylor rule. There was no greater or more persistent deviation of actual Fed policy since the turbulent days of the 1970s. So there is clearly evidence that there were monetary excesses during the period leading up to the housing boom.

- *Competing Explanations: A Global Saving Glut*

The low interest rates in 2002-2004 were caused by global factors beyond the control of the monetary authorities. If so, then the interest rate decisions by the monetary authorities were not the major factor causing the boom. This explanation is potentially appealing because long term interest rates remained low for a while even after the short-term federal funds rate started increasing. This alternative explanation focuses on global saving. It argues that there was an excess of world saving—a global saving glut—which pushed interest rates down in the United States and other countries.

To be sure, there was a gap of saving over investment in the world outside the United States during 2002-2004, and this may be the source of the term “saving glut.” But the United States was saving less than it was investing during this period; it was running a current account deficit which implies that saving was less than investment. Thus the positive saving gap outside the United States was offset by an equal sized negative saving gap in the United States. No extra impact on world interest rates would be expected. As implied by simple global accounting, there is no global gap between saving and investment.

- ***Monetary Interaction with the Sub-prime Mortgage Problem***

A sharp boom and bust in the housing markets would be expected to have had impacts on the financial markets as falling house prices lead to delinquencies and foreclosures. These effects were amplified by several complicating factors including the use of sub-prime mortgages, especially the adjustable rate variety which led to excessive risk taking. In the United States this was encouraged by government programs designed to promote home ownership, a worthwhile goal, but overdone in retrospect.

It is important to note, however, that the excessive risk taking and the low interest monetary policy decisions are connected. Evidence for this connection is shown in Figure 2 which plots housing price inflation along with foreclosure and delinquency

rates on adjustable rate sub prime mortgages. The figure shows the sharp increase in housing price inflation from mid 2003 to early 2006 and the subsequent decline. Observe how delinquency rates and foreclosure rates were inversely related to housing price inflation during this period. During the years of the rapidly rising housing prices, delinquency and foreclosure rates declined rapidly. The benefits of holding onto a house, perhaps working longer hours to make the payments, are higher when the price of the house is rising rapidly. When prices are falling, the incentives to do so are much less and turn negative if the price of the house falls below the value of the mortgage. Hence, delinquencies and foreclosures rise.

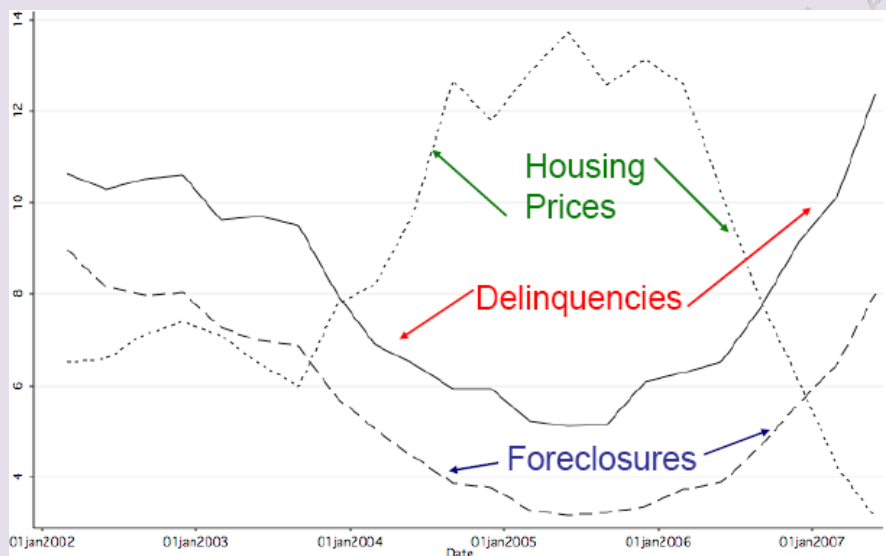


Figure 2: Housing Price Inflation and Sub-prime ARM Delinquencies and Foreclosures

Source: Federal Reserve Statistical Release 2009, Federal Reserve

Mortgage underwriting procedures are supposed to take account of the actual realizations of foreclosure rates and delinquency rates in cross section data. The procedures would therefore have been overly optimistic during the period when prices

were rising unless they took account of the time series correlation in Figure 2. Thus there is an interaction between the monetary excesses and the risk-taking excesses. It is an illustration of how unintended things can happen when policy deviates from the norm. In this case, the rapidly rising housing prices and the resulting low delinquency rates likely threw the underwriting programs off track and misled many people.

- ***More Complications: Complex Securitization, Fannie Mae, and Freddie Mac***

A significant amplification of these problems occurred because the adjustable-rate sub-prime and other mortgages were packed into mortgage-backed securities of great complexity. The risk of these was underestimated by the rating agencies either because of a lack of competition, poor accountability, or most likely an inherent difficulty in assessing risk due to the complexity. This risk in the balance sheets of financial institutions has been at the heart of the financial crisis from the beginning.

In the United States there were other government actions at play here. The government sponsored agencies Fannie Mae and Freddie Mac were encouraged to expand and buy mortgage backed securities, including those formed with the risky sub-prime mortgages. While legislation, such as the Federal Housing Enterprise Regulatory Reform Act of 2005, was proposed to control these excesses, it was not passed into law. These actions of these agencies should be added to the list of government interventions that were part of the problem.

What Prolonged the Crisis?

The financial crisis became acute on August 9 and 10, 2007 when the money market interest rates rose dramatically. Figure 3 illustrates this using a measure which has since become the focus of many studies. The measure is the spread between three-month Libor and the three month Overnight Index Swap (OIS). The OIS is a measure of what the markets expect the federal funds rate to be over the three-month period comparable to three month Libor. Subtracting OIS from Libor effectively controls for expectations

effects which are a factor in all term loans, including three-month Libor. The difference between Libor and OIS is thus due to things other than interest rates expectations, such as risk and liquidity effects.

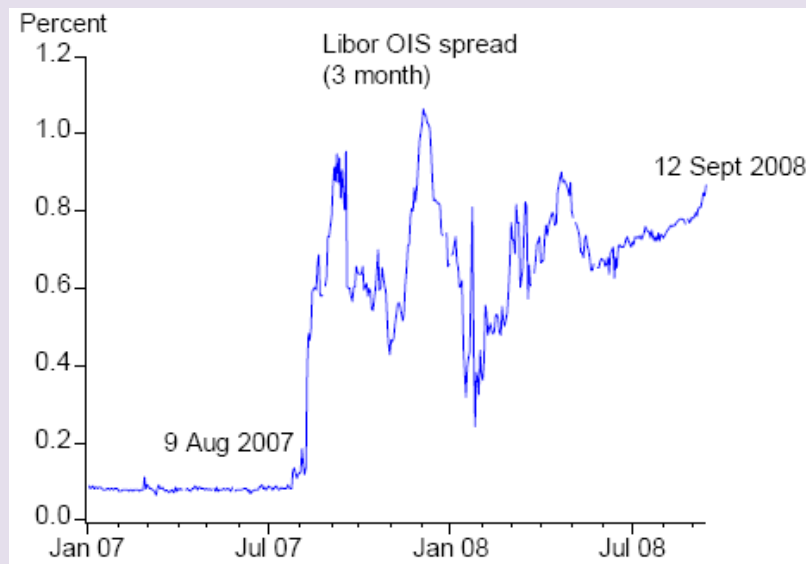


Figure 3: The Libor-OIS Spread during first year of the crisis

Source: www.bloomberg.com

On August 9th and 10th of 2007 Libor-OIS spread jumped to unusually high levels and has remained high ever since. In addition to being a measure of financial stress, the spread affects the transmission mechanism of monetary policy to the economy because trillions of dollars of loans and securities are indexed to Libor. An increase in the spread, holding the OIS constant, will increase the cost of such loans and have a contractionary effect on the economy. Bringing this spread down therefore became a major objective of monetary policy, as well as a measure of its success in dealing with the market turmoil.

Analyzing the drawbacks of current Financial System

- The banking regulations promulgated by the Basel Committee on Banking Regulation, with its emphasis on minimum capital requirements, light supervision, and market discipline, are pro-cyclical: they encourage investors to make larger and riskier investments during the upswing of the business cycle and to cut back in their investments during the downturn, increasing rather than damping the instability of the financial markets and the volatility of the underlying real economy.
- Existing regulations have not kept up with changes in the banking and financial system. They also encourage regulatory arbitrage and allow banks and other financial institutions to hide their activities from regulators using off balance sheet legal entities, complex derivative instruments, and off-shore financial centers.
- Securitization, credit derivatives, and the move from a bank-centered to a market-centered financial system in general have clearly played a role in the crisis. But the financial turmoil, when it appeared, appeared in the large banks and investment houses, or more precisely, in the short-term money markets in which these institutions at the core of the global economy raise the short-term monies that they use to finance long-term investments. The problems are on the liability rather than the asset side of their balance sheets and concern their inability to roll over short-term debt rather than the riskiness of their investments.
- Existing arrangements have done little to control leverage and excessive risk taking. Quite the contrary, banks and other financial institutions have been encouraged to use their own internal risk measurement and management to control their risk on the basis of the mistaken notion that markets price risk correctly and that it is possible, in effect, to privatize the management and control

of aggregate market risk. Financial stability is a public good that is not provided by the financial markets.

Proposing ways to fix the crisis

- **Revise Basel II's Three Pillars**

Reform should address all “Three Pillars” of the Basel Committee’s regulations and not focus solely on pillar one. The three pillars are: minimum capital requirements, supervisory review of capital adequacy and market discipline. Within the Basel II framework, the emphasis is placed on the capital requirements that rely on banks’ own internal risk management system. Market disclosure and discipline comes next. Also under Basel II, the authorities de-emphasize the traditional activities of regulators and supervisors, who enforce externally determined and sometimes non-market-based rules of regulation. The eight percent capital requirement is a minimum capital ratio. A bank’s supervisor may require it to maintain a higher one. But the authorities may have no need to enforce any requirement that a bank have a higher capital ratio, due to market discipline. Since a bank’s capital ratio is made public, it functions as a quick and easy measure of the bank’s soundness. Banks with high capital ratios have easy access to both capital and credit. The markets punish banks with low capital ratios. This may well seem a sensible thing to do if the purpose is to regulate an individual bank, but the effects are different in practice and in the aggregate: this package of policies accentuates rather than dampens the business cycle. It is easy to see why. The problem is not simply that a bank’s capital normally rises during a boom and falls during a crisis. The problem is that the capital requirements are risk-weighted. The risk weights are functions of current and recent prices, and are thus inherently counter-cyclical: the risk measures fall during the boom and rise during

the bust. Then there is the problem of Basel II's effect on the diversity of investors' opinions: if every investor is using the same risk measurement and management system, the resultant lack of disagreement will make the trading of that risk impossible. The market discipline that this system encourages is loose during the boom and harsh during the bust. Banks that are doing well, that is banks with rising capital and profitable investments that are seemingly less risky are given more capital to spend. Banks in trouble, that is, banks with falling capital and riskier and losing investments, are starved. The effect of each bank acting in the same way is first expansionary then contractionary to an extreme degree. Everyone either increases or slows his lending at the same time. Individual banks, those whose capital ratios are known to be rising or falling the most rapidly, will be rewarded most and punished worst. Two important counter-cyclical reforms should be introduced either to replace or to counteract the existing capital requirement's pro-cyclicality. The capital requirements themselves could be reformed to make them counter-cyclical. Provisioning should be used as a counter-cyclical policy tool. Banks should make the additions to their loan loss reserves when they make their loans. Margin requirements should be used proactively. The objective of these and similar measures is to prevent the bust by preventing the boom from getting out of hand.

- **Create Comprehensive Regulation**

The new regulations should be comprehensive, covering all activities, instruments, markets, and institutions, including off-balance sheet items, hedge funds, and off shore centers and tax havens. Otherwise, a "shadow finance system" makes it impossible to avoid the over-leveraging and regulatory arbitrage that contributed to the current crisis. Every kind of banking and financial activity needs to be monitored, both the underlying and the derivative security brought

under review, and exchange-traded as well as over-the-counter securities brought under control. Trading firms, insurance companies and pension and mutual funds must come under review. A world financial authority or global regulator to complement a reformed IMF, reconfigured as a central bank of central banks, would be needed to develop and then implement the needed regulatory reforms. Simply put, the domain of the regulator should be the same as the domain of the market.

- Adopt Liquidity Measures

Serious flaws exist in the short-term money markets in which financial and non-financial institutions raise funds to finance their investments and other longer term activities. Every kind of institution, market, and financial system has been adversely affected by the crisis, but the market that has been affected the worst lies at the very center of the international economy: the inter-bank market. Central banks everywhere have taken measures to make the term inter-bank market liquid again, but so far without success. The reasons for these failures are not clearly understood, nor is it apparent why the inter-bank market has been so severely affected. The short-term money markets are in urgent need of reform.

- Reduce Market Risk

Assuming that the market risk cannot be removed completely from the financial system, measures must be taken to place a ring around the system's core banking and financial institutions. The purpose is to protect the core from other less regulated sectors of the financial system that might still exist and where the informational problems continue to prevail. The problem is to control leveraging

– the mobilization of the monetary system for speculative purpose – and thus to prevent the leveraged money from collapsing during a financial crisis back into its monetary base, with inevitable disruptive effects on the use of money as a means of payment. Strong regulation, coupled with generous lender-of-last-resort lending when needed, are clearly part of the long term solution.

- Adopt Fiscal Stimulus Packages

Fiscal stimulus is urgently needed to revive the underlying real economy as monetary policy is clearly caught up in what even Keynes would call a “liquidity trap.” A large, rapid, and internationally coordinated fiscal expansion is needed to stimulate world demand, and it is needed immediately. This could and perhaps should be accompanied by a recycling of China’s, Japan’s and other countries’ large external reserves – possibly through a network of regional development banks – to emerging market and developing countries in need of additional financing.

New Global Model

The reactions of national governments in case of crisis have been much focused on their individual countries leading to adoption of protectionist measures. This ‘beggar thy neighbor’ approach would start a race to the bottom and every nation would be worse off. We recommend a new system which is based on cooperation and joint efforts where national regulators should agree upon a core set of sensible regulatory principles without losing their sovereignty.

Key components of the model are as follows:

1. Each central bank should carve out a dedicated role for a powerful LCFI (Large and Complex Financial Institutions like AIG, FNMA, and Citigroup) regulator that is in charge of supervising and managing the systemic risk of large, complex financial institutions.

2. The supervisory and control apparatus of each LCFI regulator should feature:

a. Coordinating with financial sector firms to provide long-term incentives to senior management and traders and other risk-taking employees;

b. Fair pricing of explicit government guarantees such as deposit insurance and, where implicit government guarantees are inevitable, limiting their scope by ring-fencing activities of guaranteed entities;

c. Standards for transparency and accounting of off-balance-sheet activities and centralized clearing for large OTC derivative markets to reduce counterparty risk externality;

d. Imposition of a systemic risk "tax" on LCFIs, that is based on aggregate risk contribution of institutions rather than their individual risk exposures;

e. Agreement on overall objective and design of lender-of-last-resort facilities to deal in a robust manner with liquidity and solvency concerns; and,

f. Agreeing on a set of procedures to stem systemic crises as and when they arise based on clear short-term policy measures (such as loan guarantees and recapitalizations that are fairly priced and impose low costs on taxpayers), and long-term policy measures (such as the shutting-down of insolvent institutions, providing fiscal stimulus, and addressing the root cause of financial crises — e.g., mortgages in this case).

3. A global sinking fund under the aegis of IMF should be instituted, which would provide liquidity support to the major capital markets throughout the world. Such a 'buyer of last resort' would lend stability to the global markets.

4. Establish a permanent crisis management and surveillance body under the purview of IMF which would provide inputs for faster corrective action.

5. Standards for counter cycle measures for Banking and Financial system should be defined and implemented. This would temper and dampen the intensity of business cycles. These measures should be strictly extraordinary in nature (put in action only when recession or slowdown symptoms are noted) and may be in disagreement with some of the Basel norms of risk management.

6. Comprehensive regulations should be defined for many current unregulated financial bodies such as Hedge funds. If hedge funds fall in the class of large complex financial institutions, then that fund needs to be treated as a systemic institution to be regulated.

SWOT Analysis of Model

Strengths:

1. The new model recommendations would bring more stability in the financial institutions and markets.
2. By bringing hedge funds under regulation and other measures, it would increase the transparency in the financial institutions.

Weaknesses:

1. Implementation of this model would require support and cooperation from all the major economies of the world, which as history has repeatedly shown is not easy to achieve.
2. It may face opposition from the “free market” proponents.

Opportunities:

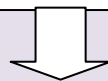
1. The model paves way for higher congruence and uniformity in the financial laws of all the nations, which would be beneficial in further liberalizing the capital flows.
2. The developing and under developed countries have an opportunity to bring their regulations at par with the developed nations, this in turn would stimulate growth.
3. Implementation of this model would pave way for the establishment of a global central bank.

Threats:

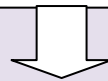
1. This model may lead to developed countries having more control over the monetary and financial policies of developing countries.
2. Greater regulations may lead to stifling of innovation in financial products and market.

The Roadmap

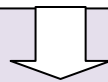
Implement measures at national and international level to bring stability in world economies in terms of LCFIs.



Implement uniform accounting standards (IFRS) and establish the global crisis management and surveillance body under the purview of IMF.



Assess the workability of the previous economic measures and continue with more integration measures.

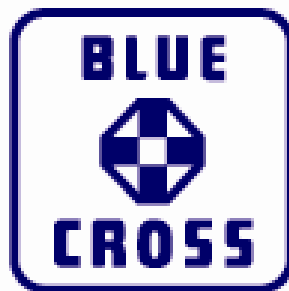


Implement Global sinking fund and prepare ground for implementing global central bank and achieve economic and financial stability.

The new model would open new avenues for global financial institutions in terms of simplification and higher uniformity in the regulations and better market access. This would also bring the much needed stability in the global financial markets and would make the world better prepared for any such future crisis.

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